AD-A198 170

DTIC FILE CUEY



SEP 1 2 1988

USERS' MANUAL HAZARDOUS MATERIALS CONTROL MODULE

Richard H. Fiddleman Kathlynn D. Miller

The MITRE Corporation January 16, 1987

DISTRIBUTION STATEMENT A

Approved for public releases
Distribution Unlimited

ADA 198170	i i	
REPORT DOCUMENTATION 1. REPORT NO. DOD/SW/MT-88/017i	2.	3. Recipient's Accession No.
. Title and Subtitle		5. Report Date 16 January 1987
avy Occupational Health Information Management azardous Materials Control Module (HMC) User's	System (NOHIMS) Manual	6.
Author(s) itre Corporation revised by NARDAC Washington	DC	8. Performing Organization Rept. No.
Performing Organization Name and Address avy Regional Data Automation Center, Washington	n (Code 4443)	10. Project/Task/Work Unit No.
uilding 143 ashington Navy Yard		11. Contract(C) or Grant(G) No. (C)
ashington, DC 20374-0001		(G)
2. Sponsoring Organization Name and Address avy Environmental Health Center aval Station		13. Type of Report & Period Covered
orfolk, VA 23511-6695 (Attn: Code 40/CDR James W. Allen, MC, USN)		14.
For magnetic tape, see: ALTE Abstract (Limit: 200 words) The Hazardous Materials Control Module (HMC) is industrial Health component. The HMC module was lealth and safety hazards in the workplace and naterials through the facility. The module pertaining health and safety data on hazardous materials through the facility. The module pertaining health and safety data on hazardous materials unformation from two sources, the laterials Information System (HMIS), this is a she Department of Defense. It is loaded on to all safety, health and transportation information in safety, health and transportation information is Material Safety Data Sheets (MSDS cicular site. This information is manually entaystem, which they give a site specific sequent	s designed to in- to track the move forms these funct erials used in th hazardous materia he first one is t national system to the system via ta on about a partic) that are procus ered into their o	our for the form employees of ement of hazardous tions by main- ne facility, and als. The HMC the Hazardous that is used by apes that contain cular product. red by a par-
and the second s		
7. Document Analysis a. Descriptors		
ccupational Health, Safety, Stressors ,	(hg-) <	enter de la companya del companya de la companya de la companya del companya de la companya de l
b. Identifiers/Open-Ended Terms		
c. COSATI Field/Group		
S. Availability Statement	19. Security Class (This Report) 21. No. of Pages
	UNCLASSIF	
RELEASE UNLIMITED	20. Security Class (I UNCLASSIE	This Page) 22. Price

TABLE OF CONTENTS

		Page
LIST	OF FIGURES	iv
1.0	BACKGROUND	1-1
1.1	Purpose of the Manual	1-1
1.2	References	1-1
1.3	Terms and Abbreviations	1-2
1.4	Hazardous Materials Control Module Overview	1-3
2.0	NOHIMS OVERVIEW	2-1
2.1	NOHIMS Modules	2-1
2.2	System Environment	2-1
2.3	System Data Base	2-2
3.0	MODULE INPUT PROCESSES	3-1
3.1	Summary of Input Processes	3-1
3.2	HMIS Data Maintenance	3-1
3.3	Local MSDS Data Maintenance	3-2
3.4	Data Sheet Request Tracking	3-2
4.0	MODULE OUTPUT PROCESSES	4-1
4.1	Summary of Output Processes	4-1
4.2	Report Production	4-1
4.3	Data Sheet Production	4-4
4.4	Search for Data on Materials	4-5
4.5	HMIS Update Results	4-5

A CONTRACTOR OF THE PROPERTY O

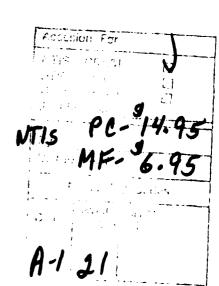
TABLE OF CONTENTS (Concluded)

		Page
APPENDIX A:	EXAMPLES OF INDEXES	A-1
APPENDIX B:	EXAMPLES OF MSDS LOGS	B-1
APPENDIX C:	EXAMPLE OF DATA SHEETS REQUESTED REPORT	C-1
Appendix D:	EXAMPLES OF DATA SHEETS	D-1
Appendix E:	EXAMPLE OF OUTPUT FROM SEARCH PROCESS	E-1
Appendix F:	EXAMPLES OF HMIS UPDATE REPORTS	F-1

LIST OF FIGURES

Figure Number	Page
1-1 OVERVIEW OF HAZARDOUS MATERIALS CONTROL MODULE	1-4
4-1 OUTPUTS FROM REPORT PRODUCTION PROCESS	4-2
4-2 OUTPUTS FROM HMIS UPDATE PROCESS	4-7





iv

USERS' MANUAL

HAZARDOUS MATERIALS CONTROL MODULE

1.0 BACKGROUND

1.1 Purpose of the Manual

This manual describes the capabilities of the Hazardous Materials Control (HMC) module of the Naval Medical Command's (NAVMED) Navy Occupational Health Information Management System (NOHIMS). After presenting some background information on the total NOHIMS system, the manual describes the module's significant data input and output processes. Examples of output reports appear in the appendices. The information in this document is intended to help the reader understand how this module can help improve the handling and tracking of hazardous materials.

1.2 References

The following publications provide background information on the HMC module:

- o DoD Hazardous Materials Information System Procedures, DoD 6050.5M, July 1981
- o Federal Supply Classification Part 1: Groups and Classes, SB 708-21, May 1982
- o Navy Occupational Safety and Health (NAVOSH) Program Manual, OPNAV Instruction 5100.23B, August 31, 1983
- o Material Management Application Shelf Life/Hazardous Materials Analysis Package, August 1984
- o Federal Standard Material Safety Data Sheets, Preparation and Submission of (Proposed), Federal Standards 313B, April 14, 1983
- o NAVSUP Instruction 5100.27: Navy Hazardous Material Control Program
- o Consolidated Hazardous Item List (CHIL) NAVSUP Publication 4500, July 1980

1.3 Terms and Abbreviations

The following terms and abbreviations are used in this manual:

- o CAS (Chemical Abstract Service) Number: A unique identification number given to chemical substances by the Chemical Abstract Service
- o IHer: The Industrial Hygienist at the medical clinic
- o FSC (Federal Supply Class): The first 4 digits of the 13-digit national stock number
- o FSCM (Federal Supply Code for Manufacturers): A 5-digit code used to identify manufacturers and distributors of hazardous materials
- o HMIS (Hazardous Material Information System): A computer-based information system developed to accumulate, maintain, and disseminate (on magnetic tape and microfiche) important characteristics of hazardous materials which exist throughout the DoD
- o LSN (Local Stock Number): A number assigned by a single facility to identify a hazardous material used in that facility
- o Material Name: The part number, trade name or synonym commonly used to refer to a hazardous material
- o MSDS (Material Safety Data Sheet): A summary of the information known about a hazardous substance; must be supplied by a vendor when a facility purchases such material
- o NFPA (National Fire Prevention Association) Code: A code assigned by the National Fire Prevention Association that reflects the health, fire, and reactivity hazards of a substance
- o NIIN (National Item Identification Number): The last 9 digits of the 13-digit national stock number
- o NIOSH (National Institute of Occupational Safety and Health) Number:
 A unique number assigned to materials by the National Institute of
 Occupational Safety and Health
- o NSN (National Stock Number): A 13-digit number used throughout the Navy to refer to any material purchased through the Federal Supply System
- o <u>U.I.C.</u> (Unit Identification Code): A unique number assigned to reach Navy facility

- o Vendor: The manufacturer or distributor of material purchased for use in a Navy facility
- o Work Control Document: A document used in shipyards that describes how to perform a job that involves hazardous materials
- o Worker Data Sheet (WDS): A summary of health and safety information on hazardous materials that is intended for use by the worker

1.4 Hazardous Materials Control Module Overview

The HMC module maintains health, safety, and location data on hazardous materials used in a Navy facility and keeps track of who requests this information. Figure 1-1 shows the module's major inputs, processes, files, and outputs. Health and safety data are entered into the system from several sources. Periodically, health and safety information is entered from tapes created by the HMIS. More recent health and safety data are entered manually directly from MSDS's.

Other health-related data and references to work control documents can also be keyed manually into the system. In addition, each local facility can add clarifying comments to most data fields. The module also has the capability of tracking requests for hazardous materials information. This feature is used to see which shops need information on which materials.

Outputs from the module consist of reports summarizing the contents of the data base and worker data sheets that are intended for distribution to workers.

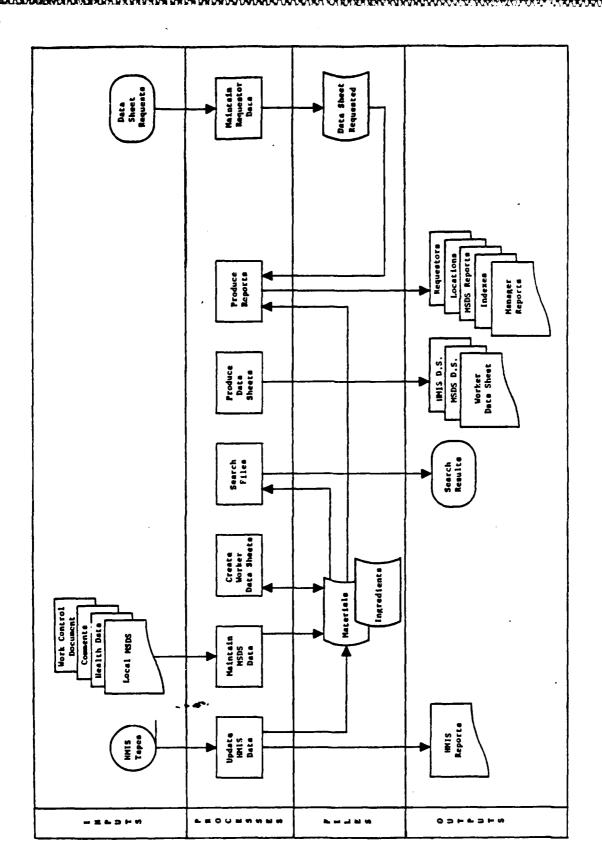


FIGURE 1-1 OVERVIEW OF HAZARDOUS MATERIALS CONTROL MODULE

2.0 NOHIMS OVERVIEW

2.1 NOHIMS Modules

NOHIMS is divided into two separate components—the Industrial component and the Medical component. The Industrial component consists of four major application modules—Administration, Environmental Exposure, Medical Exam Scheduling, Hazardous Materials Control—and various special purpose support modules. The Administration module maintains files that are used by all or most of the other application modules; these files contain data on employees, locations, operations, occupations, stressors, and agencies. The supporting modules, to be developed at a later date, will provide interfaces to statistical and graphics packages and will also permit transmission of data between NOHIMS computers. The Medical component of NOHIMS is a modification of the public—domain software package COSTAR (COmputer—STored Ambulatory Recordkeeping system).

2.2 System Environment

<u>ᢣᡛ᠘ᢞᢗᡶᠰᡳᢣᡛᡧᢗᡮᢗᠵᠮ᠙᠘ᢣ᠘ᢣᢙᢣ᠔ᡀᢣ᠘᠘ᡎᡚᡚᡚᡚᡚᡚᢣ᠘ᡎᢗᠻᡚᠻᢐᡳᠻᡠ</u>

NOHIMS will be implemented in medical clinics at Naval Air Rework Facilities (NARF's) and Navy shipyards; computer hardware dedicated for use by NOHIMS will be procured and installed there. The system will be hosted on minicomputers using video display terminals (VDTs), workstations, and printers located throughout the host facility. The size and number of minicomputers will differ from location to location, depending on workload and geographic distribution considerations. Data will be entered on-line and can be retrieved either on-line or via reports printed at night (or any later time).

NOHIMS is programmed in the MUMPS programming language and the Veterans Administration (VA) FileMan and Kernel software packages. Initially developed at the Laboratory of Computer Science at Massachusetts General Hospital, the Massachusetts General Hospital Utility Multi-Programming System (MUMPS) programming language is a combination operating system, file handler, and interpreter. The language was designed from its conception for use in an on-line, multi-user environment. MUMPS is a general-purpose language especially suited to storing and retrieving hierarchical data and processing strings, e.g., free text data, efficiently.

Using the MUMPS language, the VA developed the VA FileMan software package. A programmer or an end-user can use the features of the VA FileMan to specify the characteristics of files and/or fields within these files and to save these specifications in a data dictionary, to specify standard input and output processes and to store these processes in templates, and to execute ad hoc queries against a VA FileMan data base. The VA Kernel displays and manages the system's menus, controls user and device access to the system, manages the security features associated with menus, devices, and users, provides electronic mail functions, and enables users to schedule jobs

for later execution. Most NOHIMS files and input and output processes are implemented using VA FileMan. Processes that could not be efficiently or effectively accomplished using the features available in VA FileMan were developed using the MUMPS programming language.

2.3 System Data Base

NOHIMS contains over 100 files. There are two types of files:

- o Application files—These files are primarily intended to support the functions of a specific module, although in certain cases they may be used by other modules. In addition, the contents of these files change frequently as new data is added to the files or old data is removed from these files.
- o Reference files—These files are primarily intended to be used by a specific module, although in certain cases they may also be used by more than one module. These files differ from application files in that they contain controlled vocabularies of terms. The contents of these files are usually static or change slowly over time.

In many cases, the contents of reference files have been received from various sources within the Navy. It is possible, however, for the local site to build its own reference files. The application files used by the Administration module—Agency, Employee, Location, Operation, Occupation, and Stressor—frequently act as reference files in that they control what data can be entered into certain data fields. The contents of three of these files, Agency, Employee, and Location, can be changed by the local site.

There are no software limitations on the size of files, the number of fields in the files, or the number of files in the system.

3.0 MODULE INPUT PROCESSES

3.1 Summary of Input Processes

The Hazardous Materials Control module contains many menu options that enable the user to enter data into the module's files or to edit or delete existing data. These options c-n be grouped into processes where each process performs enter, edit, or deletion activities on a specific type of data. The module's input processes are as follows:

- o HMIS data maintenance
- o Local MSDS data maintenance
- o Data sheet request tracking

Maintaining HMIS data involves the periodic updating of the NOHIMS files from HMIS system tapes. Local MSDS data is maintained by manually keying the data contained in MSDS's received from vendors. Data sheet request information is entered manually whenever a request for a data sheet is received by the IH.

3.2 HMIS Data Maintenance

Seven HMIS tapes are sent by the Navy Environmental Health Center (NEHC) to NARDAC Washington in November, February, May, and August. NARDAC Washington will copy these tapes and send them to each NOHIMS site. There are four tapes containing safety data and two tapes containing transportation data (one tape containing reference data is not used in NOHIMS). These tapes contain records on all 35,000 materials used by DoD. All additions, changes, and deletion. on these tapes are transferred to corresponding entries in NOHIMS during each quarterly update.

Between quarterly updates, each facility may add additional HMIS records to their files by entering the three identifying fields for each new record (stock number, federal supply code for manufacturer, and part number indicator) and then processing the tapes. When the new records have been transferred from the tapes, processing stops. Any remaining tapes do not have to be read.

Each facility may annotate any HMIS record by adding comments to fields in the NOHIMS file.

3.3 Local MSDS Data Maintenance

Local MSDS's are sent to the IH from the facility's supply department whenever an MSDS is received from a vendor. The data from the MSDS is then keyed into the system. These locally entered MSDS's stay in the system as discrete entries until they are manually deleted. HMIS updates do not affect these local MSDS entries. Local MSDS's contain the same categories of information as the HMIS updates. The ability to enter local MSDS's separately from HMIS updates enables each facility to have on file current hazardous materials information that may not appear on the HMIS tapes until some later date.

The following categories of information are entered for each MSDS record:

- o Identification information
- o Ingredients
- o Physical data
- o Fire and explosion data
- o Health hazard
- o Reactivity data
- o Spill or leak procedures
- o Special protection information
- o Special precautions
- o Transportation data
- o References to work control documents (optional)
- o Special health-related information such as acute and chronic toxicity, route of exposure, neutralizing agent, carcinogenicity, NFPA code, exposure limit, and early warning properties (optional)
- o Comments on any of the standard MSDS items (optional)

3.4 Data Sheet Request Tracking

Whenever a data sheet is requested in the HMC module, the system asks the user to identify the person and shop that will be receiving the data sheet. This information is maintained by the module as a means of tracking where hazardous materials are located in the facility.

4.0 MODULE OUTPUT PROCESSES

4.1 Summary of Output Processes

The Hazardous Materials Control module contains many menu options that enable the user to obtain needed information from the module. These options can be grouped into processes, where each provides a specific type of information. There are four types of output processes in the HMC module:

- o Report production
- o Data sheets production
- o Search for data on materials
- o HMIS update results

Reports contain health, safety, or location information on a material or lists of shops requesting data sheets. The data sheets may either be those intended for distribution to workers or a complete listing of all the data about a given material. Search results are screen displays of all the data on a given material. HMIS updates produce four manager's reports that document the status and results of the HMIS update run.

4.2 Report Production

There are three types of reports in the HMC module (Figure 4-1)-indexes, MSDS logs, and data sheet requests. Index information includes a
material's vendor, trade name, MSDS number, MSDS date, stock number, and
approval code. [Indexes are used as quick references to materials on file in
NOHIMS. Examples of indexes are given in Appendix A.] MSDS logs contain
more extensive information about the materials on file, including its Federal
Supply Code for Manufacturers (FSCM), form of material, National Fire
Prevention Association, (NFPA) Code, ingredients, work control document
number and CAS/NIOSH number (not all of these items appear on every report;
each report has its own specific focus). Examples of MSDS logs are given in
Appendix B. They contain data on the shop and building to which a material
was issued, requesting shop, contract number, hazard code, stock number,
material name and vendor.

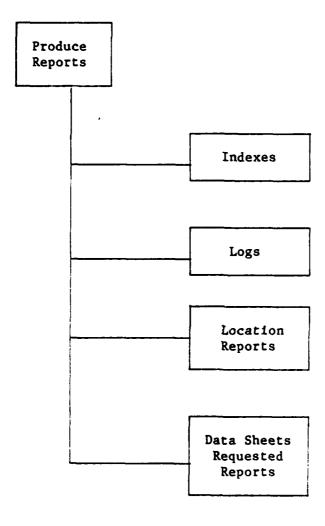


FIGURE 4-1
OUTPUTS FROM REPORT PRODUCTION PROCESS

The Data Sheets Requested Report is used for determining where materials are located in the facility. An example of a Data Sheets Requested Report is given in Appendix C.

Under each report type below is a list of the data fields that are used in sorting reports. Each data field listed corresponds to a different report.

- o Indexes
 - -By vendor
 - -By trade name
 - -By MSDS date
 - -By worker data sheet number
- o MSDS logs
 - -By MSDS number
 - -By stock number
 - -By MSDS date
 - -By specification
 - -By ingredient
 - -By work control document name
 - -By health code
 - -By fire code
 - -By reactivity code
 - -By specific NFPA code
 - -By material form
- o Location Reports
 - -By requesting shop
- o Data sheets requested report--By requestor name

4.3 Data Sheet Production

There are three types of data sheets — worker data sheets (WDS's), HMIS data sheets, and MSDS's. They all contain the following information:

- o MSDS-related data including:
 - -Identification information
 - -Ingredients
 - -Physical data.
 - -Fire and explosion data
 - -Health hazard data
 - -Reactivity data
 - -Spill or leak procedures
 - -Special protection information
 - -Special precautions
 - -Transportation data
- o References to work control documents
- o Special health-related information, including:
 - -Toxicity
 - -Route of exposure
 - -Neutralizing agent
 - -NFPA code
 - -Early warning properties

MSDS and HMIS data sheets also contain any local comments keyed into the system.

Worker data sheets (WDSs) are created at each local facility from HMIS records and local MSDS's. They contain health and safety related information in terms that workers can readily understand and apply to their jobs. The MSDS data sheet is generated from a local MSDS entry in the Material file, and the HMIS data sheet is generated from an HMIS entry in the same file.

These two data sheets are meant to be used internally by the IH office when they need detailed information on a hazardous material.

Examples of MSDS, HMIS data sheets, and WDS's are given in Appendix D.

4.4 Search for Data on Materials

A hazardous material can be identified for display purposes by:

- o WDS number
- o Material name
- o Ingredient
- o Chemical name
- o Vendor (manufacturer or distributor)
- o Stock number
- o CAS/NIOSH number
- o Specification
- o NIIN number
- o Work control document number

The results of all these searches is a screen display of information on file for that material. An example of a search display is given in Appendix E.

4.5 HMIS Update Results

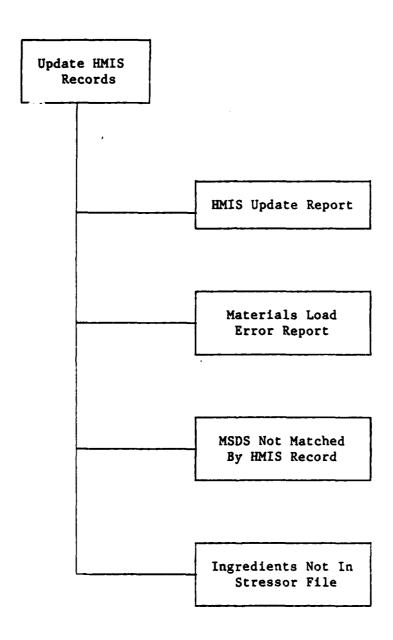
Whenever HMIS records are loaded into the NOHIMS, four reports are produced that document the status of the update process (Figure 4-2). These reports are:

- o HMIS Update Report
- o Materials Load Error Report
- o MSDS Not Matched By HMIS Record
- o Ingredients Not In Stressor File

The first report, HMIS Update Report, lists the records that were added, changed, or deleted in the NOHIMS file. The report shows the three key identifying fields of an HMIS record (stock number, federal supply code for manufacturers, and part number indicator), the material's name, and the vendor. The second report, Materials Load Error Report, contains a list of records that had one or more fields that did not pass input screening tests for that field. The three key fields are given, along with the field number and value of the fields in error.

The third report, MSDS Not Matched By HMIS Record, contains a list of materials that the user assumed would be updated by HMIS that, in fact, were not updated by HMIS. The report shows the stock number of the material and details of any local MSDS associated with that stock number. The Ingredients Not In Stressor File produces a list of materials that contain ingredients that are not included in the defined set of NOHIMS stressors.

Examples of these reports are given in Appendix F.



THE PROPERTY OF THE PROPERTY O

FIGURE 4-2
OUTPUTS FROM HMIS UPDATE PROCESS

APPENDIX A

EXAMPLES OF INDEXES

APPENDIX A

In the following indexes, the term "vendor" refers to the manufacturer if there is one. If there is no manufacturer, "vendor" refers to the distributor. The term "trade name" may, in some cases, be a part number. HMIS documents define the trade name field to include part number or other synonym. In the case of local MSDS's, the first name keyed into the Material Name multiple is defined to be the trade name. Therefore, if some other name was entered before the trade name, that first name would appear on the indexes as the trade name. For HMIS entries, the column labeled "MSDS Number" contains the number of the local MSDS that covers the same material as the HMIS entry. Many HMIS entries do not have a corresponding local MSDS. The column labeled "MSDS Date" contains the date associated with the local MSDS if there is a local MSDS. If there is no local MSDS, the MSDS date in the HMIS entry is defined as the date the HMIS entry was added to the HMIS system. The column labeled "WDS Number" contains the number of the worker data sheet that has been created from the HMIS entry or local MSDS. The column labeled "Stock Number" refers to the national stock number for all HMIS entries. For local MSDS's, the stock number is the first local stock number entered with the local MSDS. If no local stock number was entered, the stock number is defined as the locally generated MSDS number. asterisk following the stock number means that the stock number is a national stock number and there are, in addition, one or more local stock numbers associated with the entry.

BASBS INDEX BY VENDOR VENDOR	TRADE NAME	MSDS NUMBER	MSDS DATE	UDS NUMBER 810CK NUMBER STOCK NUMBER	-
371 >71 4	1.8 F & S.F	M/00181-20	DEC 12,1985	A12345	
SCHALTE	F150-1/4-ASBESTOS.		DEC 3,1981	59700000000	
ALTER BOOM	DEDXIDINE A24	•	FEB 2,1981	685000000000	
ARCHER PROBLETS, THE	ALORENE (KIT 120)	M/00181-18	OCT 10,1985	M/00181-18	
THERE TRUESCO. THE	SONTIN SIN FATE	•	SEP 29,1985	*******	
DEGREE MADINE CHATINGS CO.	ABC	M/00181-3	MAY 21,1985	M/00181-3	
SECOL MANIME CONTINUS CO.	240000	M/00181-16	OCT 21,1985	53A10	
DON	COMPOUND I	H/00181-2	SEP 1,1985	M/00181-2	
	PATHT, YELLOW	•	OCT 22,1985	222222222222	
	DEGREASING SOLUTION	M/00181-1	JAN 1,1985	A100	
	SOI UENT	M/00181-37	NOV 21,1985	12345L12345	
DIEGONT	XXDIENE	M/00181-30	OCT 31,1985	M/00181-30	
F. T. DIIPONT DE NEKOIRS	DUCO LACOUFR. FLAT BLACK	M/00181-19	NAR 7,1985	. M/00181-19	
HOFFER'S INCPAINT DIV.	SEMI-GLOSS INTERIOR LATEX WHIT	HIT 80101 S0010001	JUN 14:1982	8010LS0010001	
MIDLAND DIV THE DEXTER CORP	LAHINAR X-500	N/00181-25	AUG 16,1985	N/00181-25	

EMSBS INDEX BY TRADE MANE	VENDOR	MSDS NUMBER	MSDS DATE	NDS NUMBER	JUL BILYER TOTOR THUE I	1405.1
120)	DEUDE MARINE COATINGS CO. M/00181-3 MAY 21:198 ANCHEN FRODUCTS: INC. M/00181-18 OCT 10:198 USN CORPORATION: BOSTIK DI	!	MAY 21,1985 OCT 10,1985 AUG 31,1981		M/00181-3 M/00181-18 8040N05985164 M/00181-2	
CONFOUND W DEGREASING SOLVENT DEGXIBINE 624	TOW CHEN M/00181-2 DOW CHEN M/00181-1 ANCHEN PROD - N/00181-16 DEUGF MARINE COATINGS CO. M/00181-16		SEF 141783 JAN 141985 FEB 241981 OCT 2141985		A100 685000000000 53A10	
DUCO LACQUER, FLAT BLACK F150-3/4, ASBESTOS.			MAR 7,1985 DEC 3,1981 DEC 12,1985		A/00181-19 597000000004 A12345 K/00181-25	
LANIMAR X-500 PAINT, YELLOW PERMAFUSE PROFYLEME DXIDE	MIDLAND DIV THE DEXTER CD M/00181-25 DOW PERMAFUSE CORP. LINDE M/00181-10 UNION CARBIDE CORP. LINDE M/00181-14		AllG 16,1785 OCT 22,1985 JAN 10,1984 APR 2,1981 SEP 28,1984	•	222222222222222 A10 6810000000001 H/00181-14	
01 A15 MASP=188117	. 41.4 11.201.101.101.101.101.101.101.101.101.1					

	w.	VENDOR	MSDS NUMBER	UDS NUMBER	UMBER STOCK NUMBER
			*		
FED 2,1981	DEOXIDINE 624	ANCHEN PROD	•		685000B000002
FEB 24.1981	VIRGINIA 410 DEGREASING SOLVEN VIRGINIA CHEM. INC	VIRGINIA CHEM. INC			685000800003
	PROPYLEME OXIDE	UNION CARBIDE CORP. LINDE DIV	•		6810000000001
	BOSTIK 1007F	USM CORFORATION. BOSTIK DIVISIO			8040N05985164
	F150-3/4.ASBESTOS.	AMATEX CORP.	,		5970000000004
	SEMI-GLOSS INTERIOR LATEX UNIT	HOFFER'S INCPAINT DIV.	B010L S0010001		8010LS0010001
	PERMAFUSE	PERMAFUSE CORP.	M/00181-10		A10
	PT S15 WASP-FREEZE		M/00181-14		M/00181-14
	DEGREASING SOLVENT	DOW CHEM	M/00181-1		001♥
MAR 7,1985	DUCO LACOVER. FLAT BLACK		M/00181-19		M/00181-19
MAY 8,1985	TUREO 5351	TURCO PRODUCTS	H/00181-13	W/00181-2	M/00181-13
MAY 21,1985	APC	DEVOE MAKINE COATINGS CO.	M/00181-3		M/00181-3
AUG 16,1985	LAMINAR X-500	MIDLAND DIV THE DEXTER CORP	M/00181-25		M/00181-25
SEP 1,1985	COMPOUND W	200	M/00181-2		M/00181-2
SEP 16.1985	TYPE 361A SOLDER	TENNECO	11111122222333		1111122223334

BUDS INDEX BY MATERIAL NAME	AHE				JUL 8,1986 10:07	10:01	PAGE 1
TRADE NAME LDS MI	UDS NUMBER	UDS DATE	APPROVAL UDS DATE VENDOR SOURCE MSDS CODE	SOURCE NSDS	APPROVAL CODE		; ; ; ;
SILASTIC(R) 732 SEALANT SILASTIC(R) 732 SEALANT	W/00191-21	JAN 7,1986	DOW CORNING CORF. DOW CORNING CORF.	M/00181-17 N/00181-19	NOT APPROVED NOT APPROVED		

APPENDIX B

EXAMPLES OF MSDS LOGS

APPENDIX B

In the following reports, the term "vendor" refers to the manufacturer if there is one. If there is no manufacturer, "vendor" refers to the distributor. The term "trade name" may, in some cases, be a part number. HMIS documents define the trade name field to include part number or other synonym. In the case of local MSDS's, the first name keyed into the Material Name multiple is defined to be the trade name. Therefore, if some other name was entered before the trade name, that first name would appear on the indexes as the trade name. For HMIS entries, the column labeled "MSDS Number" contains the number of the local MSDS that covers the same material as the HMIS entry. Many HMIS entries do not have a corresponding local MSDS. The column labeled "MSDS Date" contains the date associated with the local MSDS if there is a local MSDS. If there is no local MSDS, the MSDS date in the HMIS entry is defined as the date the HMIS entry was added to the HMIS system. The column labeled "WDS Number" contains the number of the worker data sheet that has been created from the HMIS entry or local MSDS. The column labeled "Stock Number" refers to the national stock number for all HMIS entries. For local MSDS's, the stock number is the first local stock number entered with the local MSDS. If no local stock number was entered, the stock number is defined as the locally generated MSDS number. An asterisk following the stock number means that the stock number is a national stock number and there are, in addition, one or more local stock numbers associated with the entry. The column labeled "FSCM" refers to the Federal Supply Code for Manufacturer. The column labeled "P/N" or "PNI" is the part number indicator.

ASSOS LUG BT ASSUS NUMBER ASSOS NUMBER TRADE NAM	ITADE WANE	VENDOR	TELEPHONE	FORM	NFPA	STOCK NUMBER	PAGE
•	PAINT, YELLOW	204		GAS	222ACID	222222222	
	SODIUM SULFATE	CHEMCO		SK	311AC1D	**********	
,	F150-3/4, ASBESTOS.	AHATT CORP.	215-275-4602			597000000004	
,	PROFYLENE DXIDE	U ARBIDE CORP, LINDE 212-551-4785	212-551-4785			681000000001	
,	DEDXIDINE 624	ANCHE - PROD	215-628-1000			685000000002	
,	VIRGINIA 610 DEGREASING S	DEGREASING S VIRGINIA CHEM, INC.	804-484-5000			685000000003	
,	BOSTIK 1007P	USH CORPORATION, BOSTIK DI 617-777-0100	617-777-0100			B040N05985164	
1111122222333	TYFE 3614 SOLDER	TE.NNECO			123ACID	1111122222333\$	
8010LS0010001	SEMI-GLOSS INTERIOR LATEX	INTERIOR LATEX HOFFER'S INCPAINT DIV. 715-845-7221	715-845-7221			8010LS0010001	
h/00181-1	DEGREASING SOLVENT	DOU CHEM			333ACID	A100	
M/00181-10	PERMAFUSE	PERMAFUSE CORP.	516 335-9876 LIQUID 222ACID	LIGUID	222ACID	A10	
M/00181-13	TURCO 5351	TURCO FRODUCTS	818 579-6270 GAS	6AS	111ACID	H/00181-13	
M/00181-14	PT 515 WASP-FREEZE	UHITHIRE RESEARCH LAB.	314 225-5311	GAS	311COR	N/00181-14	
H/00181-16	DEVRAN	DEVOE MARINE COATINGS CO.	502 897-9861		3210XY	53A10	
M/00181-18	ALDDINE (KIT 120)	ANCHEM PRODUCTS, INC.	215 393-4938		123COR	H/00181-18	
						•	

HSDS LOG BY STOCK NUMBER	DCK NUMBER	!		4	JGL 9,	JUL 8,1986 10:08 PAGE	PAGE
TOCK NUMBER TRADE NAM	TRADE NAME	VENDOR	MSDS WURBER	ASUS DAIR	T UKI	#FF.	
***************************************	TYPE TATA COLDER	TENNECO	1111122222333	SEP 16,1985	,	123AC1B	
200000000000000000000000000000000000000	PAINT, YELLOW BOW	TOU		5	GAS	222AC1D	
444444444	SOUTH SIN FATE	CHENCO	•	SEP 29,1985	CMK	311ACID	
23451112345	SOLUENT	DOW CHEMICAL	M/00181-37	3		2120XY	
3010	DECRAN	DEVOE MARINE COATINGS CO.	M/00181-16	: 13		. 3210XY	
97000B000004	F150-3/4.ASBESTOS.	AMATEX CORP.	1	2			
81000000001	PROPYLENE DXIDE	UNION CARBIDE CORP, LINDE	•	æ			
8500011000002	DEOXIDINE 624	ANCHEM PROD	•	FEB 2,1981			
22000000000	UTRGINDA 610 DEGREASING S	VIRGINIA CHEM, INC		FEB 26,1981			
010150010001	SEMI-GENSS INTERIOR LATEX	HOFFER'S INCPAINT DIV.	8010LS0010001	JUN 14,1982			
040N05985164	HOSTIN 1007P	USH CORFORATION, BOSTIN DI	•	90			
10	FERMATISE	FERMAFUSE CORF.	M/00181-10	JAN 10,1984	LIGUID	LIGUID 222ACID	
100	DEGREASING SOLVENT	DOW CHEM	H/00181-1	JAN 1,1985		333AC10	
12345	GREASE	AJAX INC.	M/00181-20	DEC 12,1985			
/00181-13	TURCO 5351	TURCO PRODUCTS	M/00181-13	MAY 8,1985	GAS	111ACT	
/00181-14	PT 515 WASP-FREEZE	WHITHIRE RESEARCH LAB.	M/00181-14	SEP 28,1984	6AS	311COR	

HASDS LOG DY MSDS DATE MSDS WUMB	IS LOG DY MSDS DATE DATE MSDS NUMBER	TRADE NAME	VENDOR	FORM	NFPA	JUL 8,1986 10:09 STOCK MUNDER	PAGE 1	2
FEB 2,1981	ņ	DEOXIDINE 624	ANCHEN PROD			6850000000002	84063	•
FEB 24,1981		VIRGINIA #10 DEGREASING S	UIRGINIA CHEM, INC			685000000003	87698	<
	,	PROFYLENE OXIDE	UNION CARBINE CORP. LINDE			681000D000001	BN 493	<
AUG 31,1981	,	BOSTIK 1007F	USM CORPORATION, BOSTIK DI			8040N05985164	61957	<
		F150-3/4, ASBESTOS.	AMATEX CORP.			597000000004	96806	<
	Ξ	SEHI-GLOSS INTERIOR LATEX	-GLOSS INTERIOR LATEX HOFFER'S INCPAINT DIV.			8010150010001	81348	⋖
JAN 10, 1984	M/00181-10	PERMAFUSE	PERMAFUSE CORP.	LIGUID	LIGUID 222ACID	A10	333	
SEP 28,1984	M/00181-14	PT 515 WASP-FREEZE	WHITHIRE RESEARCH LAB.	GAS	311COR	M/00181-14		
JAN 1,1985	M/00181-1	DEGREASING SOLVENT	DOW CHEM		333AC10	A100		
		DUCO LACQUER, FLAT BLACK	E. I. DUPONT DE NENOURS		123AC1D-COR	M/00181-19		
		TURCO 5351	TURCO PRODUCTS	GAS	111ACID .	M/00181-13		
MAY 21,1985		AFC	DEVOE MARINE COATINGS CO. LIQUID	LIONID		M/00181-3		
AUG 16,1985	M/00181-25	LAHINAR X-500	MIDLAND DIV THE REXTER CO		311COR	N/00181-25		
SEP 1,1985	M/00181-2	COMPOUND W	204	SOLID	3110XY	M/00181-2		
SEP 16,1985	1111122223333	TYPE 361A SOLDER	TENNECO	•	123AC1D	11111122223338	22222	
SEP 29,1985	•	SODIUM SULFATE CHEMCO	CHENCO	Z¥.	311ACID	4444444444	66666	

10 PAGE 1 HSDS DATE	OCT 10,1985 SEP 28,1984 HAY 8,1985 OCT 21,1985
10:10 RSB	SEP SEP S
JUL 8,1986 10:10 MSDS	S, INC. RCH LAB. OATINGS C
UENBOR	ANCHEM PRODUCTS, INC. OCT 1 WHITMIRE RESEARCH LAB. SEP 2 TURCO PRODUCTS HAY DEVOE MARINE COATINGS CO. OCT 3
JUL 8-1986 10:10 PABE 1 SPECIFICATION NSDS NUMBER STOCK NUMBER FSCK PKI TRADE NAME VENDOR VENDOR NSDS DATE	ALODINE (KIT 120) PT 515 WASP-FREEZE Turco 5351 Deuran
FSCK PI	99999
STOCK NUMBER	M/00181-18 M/00181-14 M/00181-13 53A10
CIFICATION NSBS NUMBER	M/00181-18 M/00181-14 M/00181-13 M/00181-16
ENSDS LOG BY SPECIFICATION SPECIFICATION	MIL-1111 MIL-12345 MIL-33333

MFPA CODE		MSDS NUMBER	TRADE NAME	VENDOR	FORM	8.1986	JUL 8:1986 10:10	2
0 6 8 1 1 1 8 8 8 8 8	HEALTH COME:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
123AC1D	1111122223338	111112222333	TYPE 361A SOLDER	TENNECO				
IIIACID	1234567890123	M/00181-30						
IIIACID	M/00181-13	M/00181-13	TURCO 5351	TURCO PRODUCTS	6AS			
123COR	M/00181-18	M/00181-18	ALDDINE (KIT 120)	ANCHEM PRODUCTS, INC.				
123AC1D-COR	123ACID-COR N/00181-18	M/00181-19	DUCO LACQUER, FLAT BLACK	E.I. DUFONT DE NEMOURS				
	HEALTH CODER 2							
222AC1D	22222222222	•	PAINT, YELLOW	700	GAS			
	123451112345	M/00181-37	SOLVENT	DOW CHEMICAL				
_	A10	M/00181-10	PERMAFUSE	PERMAFUSE CORP.	LIGUID			
	HEALTH CODE: 3			•				
311ACID	*********	•	SODIUM SULFATE	CHENCO	X			
	53A10	M/00181-16	DEURAN	DEVOE MARINE COATINGS CO.			•	
3334610	A100	M/00181-1	DEGREASING SOLVENT	DOW CHEN				
311COR	N/00181-14	M/00181-14	PT 515 WASP-FREEZE	WHITHIRE RESEARCH LAB.	GAS			
3110XY	N/00181-2	M/00181-2	COMPOUND W	PO#	SOL 10			

HASDS LOG NFPA CODE	ENSDS LOG BY NFPA CODE NFPA CODE STOCK NUMBER	NSDS NUMBER	TRADE NAME		JUL 8,1986 10111 FORM	10:11	_ i
			50520997589589589575893113980588538				
	FIRE CODE: 1						
111ACID	1234567890123	M/00181-30					
311AC1D	4444444444	•	SODIUM SULFATE	CHENCO	UNK		
2120XY	12345LL12345	M/00181-37	SOLVENT	DOW CHENICAL			
11114C1B	M/00181-13		TURCO 5351	TURCO FRODUCTS	GAS		
311008	M/00181-14		PT 515 WASP-FREEZE	WHITHIRE RESEARCH LAB.	GAS		
3110XY	M/00181-2 *		COMPOUND W	NOG	SOLID		
311COR	M/00181-25		LAHINAR X-500	MIDLAND DIV THE DEXTER CO			
312AC1D	M/00181-3		ABC	DEVOE MARINE COATINGS CO. LIQUID	L10011		
312COR	M/00181-30	M/00181-30	XYOLENE	DUPONT			
	FIRE CODE: 2						
123ACID	11111122223334	1111122222333	TYPE 361A SOLDER	TENNECO	,		
222ACID	2222222222	•	PAINT, YELLOW	NOO	GAS	·	
3210XY	53A10	M/00181-16	DEURAN	DEVOE MARINE COATINGS CO.		•	
222AC1D	A10	M/00181-10	PERMAFUSE	PERMAFUSE CORP.	LIGUID	•	
123008	M/00181-18		ALODINE (KIT 120)	ANCHEM PRODUCTS, INC.			

HASDS LOG NFPA CODE	BMSDS LOG BY WFFA CODE NFPA CODE STOCK WUMBER	NSDS NUMBER	TRADE NAME	VENDOR	JUL 8,1986 10:11 FORM	1986	8,1986 10:111 P	•
					1 1 1 1 1			
	REACTIVITY CODE: 1							
111ACID	1234567890123	M/00181-30						
311AC1D	**********	•	SODIUM SULFATE	CHENCO	CNE			
3210XY	53410	N/00181-16	DEVRAN	DEVOE MARINE COATINGS CO.				
111ACID	M/00181-13		TURCO 5351	TURCO PRODUCTS	GAS			
311608	M/00181-14		PT 515 WASP-FREEZE	WHITHIRE RESEARCH LAB.	GAS			
3110XY	N/00181-2 *		COMPOUND W	HOO	SOLID			
311008	M/00181-25		LANINAR X-500	MIDLAND DIV THE DEXTER CO				
	REACTIVITY CODE:				!			
222AC1D	22222222222	•	FAINT, YELLOW	. 100	6AS			
2120XY	12345L12345	M/00181-37	SOLVENT	DOW CHEMICAL				
222AC1D	A10		PERMAFUSE	PERMAFUSE CORP. LIQUID	LIGHID			
312ACID	M/00181-3	M/00181-3	ABC	DEVOE MARINE COATINGS CO.	LIOUID		•	
312COR	M/00181-30	M/00181-30	XYOLENE	DUFONT				
	REACTIVITY CODE:	m						
123AC1D	1111122222333# 11111122222333	1111122222333	TYPE 361A SOLDER	TENNECO	•			

EMSDS LOG	IMSDS LOG DY NFPA CODE	MSDS KUMBER	TRADE NAME	VENDOR	JUL Briyse tolik from F		71.	
	ļ				 			
9174101	SPECIFIC HAZARDI	ACID 1111122222333	TYPE 361A SOLDER	TENNECO				
1114C10	1234547890123	M/00181-30	PAINT, YELLOW	700	SAS			
311ACID	4444444444	,	SODIUM SULFATE	CHENCO PERMANIES CORP.	CXX 1 TOE TO			
222AC1D	A10	M/00181-10	PERMAFUSE Degredsing solutive	DOW CHEM				
333ACIB	A100 M/00181-13A		TURCO 5351	TURCO PRODUCTS	GAS			
312ACIB	M/00181-3	N/00181-3	ABC	DEVUE MAKINE LUMIINUS CU. LIGUID				
123AC1D-C	SPECIFIC HAZARD: 23acid-cor H/00181-19	AC10-LUK N/00181-19	DUCO LACQUER, FLAT BLACK E.1.DUFONT DE NEMDURS	E.1.DUFONT DE NEMOURS				
3636	SPECIFIC HAZARD: C	COR H/00181-14	PT 515 WASP-FREEZE	WHITHIRE RESEARCH LAB.	GAS	•	_	
123COR	M/00181-18	H/00181-18	ALBBINE (NIT 120)	ANCHEM PRODUCTS, INC.			•	
311COR	M/00181-25	M/00181-23	XYDLENE X 300	DUPONT				
277717								

JUL 8,1986 10112

.06 BY FORM	MIN SESM	TRADE NAME	VENDOR	JUL	JUL 8,1986 10112	10112	PAGE 1
1111122222333 2222222222 NOO181-13 NOO181-14 NOO181-14 NOO181-3 NOO181-3 NOO181-2 4444444444444	1111122222333 M/00181-13 M/00181-14 M/00181-10 M/00181-2	TYPE 3414 SOLDER FAINT, YELLOW TURCO 5351 PT 515 WASP-FREEZE PERHAFUSE ABC COMPOUND W SODIUM SULFATE	12222333 TYPE 3414 SOLDER TENNECD 123ACID PAINT, YELLOW DOW 222ACID 191-13 TURCO 5351 TURCO PRODUCTS 111ACID 191-14 PT 515 WASP-FREEZE WHITNIRE RESEARCH LAB. 311COR 181-10 PERMAFUSE PERMAFUSE CORP. 222ACID 181-3 ABC DEVOE MARINE COATINGS CO. 312ACID 181-2 COMPOUND W DOW 311ACID 181-2 SODIUM SULFATE CHEMCO 311ACID	123ACID 222ACID 111ACID 311COR 222ACID 312ACID 311OXY			

EINGREDIENTS REPORT INGREDIENTS	PERCENT	TRADE NAME	CHEMICAL NAMES	VENDOR	JUL 8,198 MSDS NUMBER	JUL 8:1984 10:13 PAGE 1 NUMBER STOCK NUMBER
	* • • • • • • • • • • • • • • • • • • •		, t			
ACE TAL DEHYDE	20-60	COMPOUND			A/00181-2	Z-18100/W
AUDITIVES	16.1	SEMI-GLOSS INTERIOR		HOFFER'S INCFAINT	8010150010001	B010LS0010001
AL COHOL	35	COMPOUND W		PO#	M/00181-2	M/00181-2
ALCOHOL	20	FERMAFUSE	PERMAFUSE	PERMAFUSE CORP.	M/00181-10	A10
ALCOHOL	•	DUCO LACQUER, FLAT B	A/N	E.I. DUFONT DE NEMOUR	M/00181-19	M/00181-19
ALIFHATIC ESTER	'n	DUCO LACQUER, FLAT B	A/A	E.I.DUFONT DE NEKOUR	M/00181-19	M/00181-19
ALIPHATIC KETONES	. 62	DUCO LACQUER, FLAT B N/A	A/N	E. I. DUFONT DE NEMOUR M/00181-19	M/00181-19	M/00181-19
ALIFHATIC NAFHTHA	<u>.</u>	DEURAN		DEVOE MARINE COATING M/00181-16	M/00181-16	53410
	•,	F150-3/4, ASBESTOS.	HYDRATED MAGNESIUM S	AHATEX CORP.		597000000004
BENZENE	04	PERHAFUSE	PERMAFUSE PERMAFUSE CORP.	PERMAFUSE CORP.	M/00181-10	A10
BENZENE	101	SOLUENT	TRICHLORDETHANE	DOW CHEMICAL	M/00181-37	12345LL12345
BENZENE	10 %	DEGREASING SOLVENT		DOW CHEM	M/00181-1	A100
BENZENE	7	GREASE		AJAX INC.	M/00181-20	A12345
CHLOROFORM	82	FAINT, YELLOW		Non	•	2222222222
CHLORDFORM	20	PERMAFUSE	PERMAFUSE	PERMAFUSE CORP.	M/00181-10	A10

DATE TRADE NAME STOCK NUMBER	PT 515 WASP-FREEZE WHITHIRE RESEARCH LAB. M/00181-14 DEURAN DEUDE MARINE COATINGS CO. 53A10 PAINT, YELLOU DOU FERNAFUSE CORP. A10 DEGREASING SOLVENT DOU CHEM
DATE TRADE WANE	PT 515 WASP-FF DEURAN PAINT, YELLOW PERMAFUSE DEGREASING SOI
BUORK CONTROL BOCUNENT REFORT BOC. NUMBER BOC. MANE	SPRAY PAINTING HULL FAINTING TIG WELDING ASBESTOS STRIPPING SAND BLASTING
BUCK CONTROL BOC. NUMBER	P/100 P/150 P/210 F/500 P1/10

ECAS/NIOSH NE	MBER REFORT			JUL 671750	JUL 611760 IUII4 FAUL 1	
CAS NO.	CAS NO. MIOSH NO.	INGREDIENTS	ENTS TRADE NAME VENDOR MSDS NUMBER	VENDOR	ESDS NUMBER	- 1
• • • • • • • • • • • • • • • • • • • •						
0-00-000	M/1	BENZENE	PERMAFUSE	PERMAFUSE CORP.	M/00181-10	
0-00-0000	1/R	PENZENE	SOLVENT	DOW CHENICAL	M/00181-37	
0-00-000	N/1	BENZENE	DEGREASING SOLVENT	DEGREASING SOLVENT DOW CHEM M/00181-1	M/00181-1	
0-00-0000	· · ·	BENZENE	GREASE	AJAX INC.	M/00181-20	
123-202-3	N-123	FERRICYANINE SALT	ALODINE (KIT 120)	ANCHEM PRODUCTS, I	INC M/00181-18	
192-29-2	616E-N	XYLOL	DEURAN	DEVOE MAKINE COATI	THG M/00181-16	
1-262-162	N-1928	CRHOMIC ACID	ALDDINE (KIT 120)	AMCHEM PRODUCTS, 1	INC N/00181-13	
30303-3-2	N-303	ALIFHATIC NETONES	DUCD LACQUER, FLAT	B E.I. DUPONT DE NEMO	JUR M/00181-19	
191-19-2	N-2938	ALIPHATIC ESTER	DUCO LACQUER, FLAT	HICO LACQUER, FLAT & E.I. DUFONT DE NEMOUR M/00181-19	JUR N/00181-19	
555-55-4	C6C-X	ETHYLENE GLYCOL	DEURAN	DEVOE MARINE COATI	ING M/00181-16	

APPENDIX C

EXAMPLE OF DATA SHEETS REQUESTED REPORT

					26	JUL 8,1986 10121	PAGE 1
BOATA SHE	EDATA SMEETS REDUCSTED	PANGE NO.	DATA SHEET REQUESTED	HATERIAL NAME	DATE REQUESTED	DATE REQUESTED TIME REQUESTED	STATUS
SHOP	KEGOESTOK NAME		1	, , , , , , , , , , , , , , , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
1				1	3001.01		PENDING
401	DAME SMITH		9999988888777	409 CLEANER	E .		DENDING
245			M/00181-16	DEVRAM	200		PLEATER
901	EU BUINIEBLEE	00000	M/00181-13	TURCO 5351	ij		
425.1	JAME DUE		0010000	DILLO LACORER. FLAT BLACK	쥝		FEREING
MEHC	JIH CRAWL		11:10:00/1		OCT		PENDING
350	JOE ADAMS .		8-18100/W	DEDMACHER	OCT 5,1985		PENDING
! !	•		01-18100/W	TERMITOR SOURT	1		SENT
	. 4		M/00181-12	UAP WOUL DUUGH	5		OTHER
	φ.		N/00181-1	GACOFLEX HYPALUN	;		PENDING
901	NOTE SOF	12345	M/00181-19	DUCO LACOUER, FLAT BLACK	NOV BYINGS		
701	300 NHOT				, 11. 1005		PENDING
2 0	KATHY MILLER	91	H/00181-30	XYOLENE	001 311103	•	
÷			H/00181-2	TURCO 5351	1001.00		PENDING
209	MARY JONES		M/00181-10	PERMAFUSE	1011783		
9	SAM						

#LOCAT	#LOCATION REPORT BY REQUESTING SHOP-R SHOP-R CONTRACT NO	REDUESTING SHOP CONTRACT NO.	STOCK NUMBER		펄	JUL 8,1986 10:15 DATE-1	PAGE 1
	\$ { { { { { { { { { { { { { { { { { { {	;	1 1 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		, 6 2 6 2 8 9 5 2 8 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
11	17		5640002374786	SHEET, PLASTIC INSUL., 1 THK, Z	7	SEP 30,1985	23
11	31		8305001858457	CLOTH, BUCK, COTTON 4-FLY WARP	2	SEP 30,1985	S
==	. TE	. • 4	6830002708216	ACETYLENE TECHNICAL 98 PER CEN	2	SEP 30,1985	35
11	30	r.	4020R07AL57RC	RORE BRAIDED 3/16 IN DIA NYLON Z	2	SEP 30,1985	25
=	* 9		5640199CL991F	INSULATION PIPE STEAM 7 IN IP 2	2	SEP 30,1985	55
=	64		5640199CL99IF	INSULATION FIPE STEAM 4 IN 1P 2	2	SEP_30,1985	22
=	• •		5640002374786	SHEET, PLASTIC INSUL., 1 THK, 2	2	SEP 30,1985	35
==	3		5640002374781	INSULATION SHEET FOANED PLASTI Z	2	SEP 30,1985	22
=	64		5640002374781	INSULATION SHEET FOANED PLASTI 2	2	SEP 30,1985	82

ELOCA DLOG.	SHOP-	R SHOP-	ELOCATION REPORT BY BUILDING ISSUED TO BLDG. SHOP-R SHOP-I CONTRACT NO. ST	D TO STOCK NUMBER	MATERIAL	MATERIAL DESCRIPTION	HZ-CD	HZ-CD VENDOR	JUL 8,1986 10:16 DATE-I	986	10:16 DATE-I	PAGE 1
				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1	• • • • • • • • • • • • • • • • • • •						
30	0	07	M0061284A1003	DC5148R34	TORCH TI		P0100	PO100 X-ERGON			SEP 30	SEP 30,1985
:	19	51		DC5262191			7	UNKNOWN VENDOR	DOR		SEP 3	SEP 30,1985
Į	60	6	. •	DC5262309			2	UNKHOUN VENDOR	BOR		SEP 3	SEP 30.1985
7	20	20	· •	DC5262560			7	UNKNOWN VENDOR	308		SEP 3(SEP 30,1985
÷	31	31		4820002261981	SEAT	SEAT UALVE,	7	UNKNOWN VENDOR	DOR		E 43S	SEP 30.1985
ŧ	20	20		7350000825741	CUP	PLASTIC STYRENE 8 02	2	UNKNOWN VENDOR	FOR	•	SEP 3	SEP 30,1985
=	20	Š		8540007935425			2	UNKNOWN VENDOR	DOR		SEP 3	GEP 30,1985
=	49	4		8530001625629	BLADE, RAZOR	MZOR	2	UNKHOUN VENDOR	DOR		SEP 3	SEP 30,1985
=	05	05		8010005308370			2	UNKNOWN VENDOR	DOR		SEP 3	SEP 30,1985

BLOCATION REPORT BY CONTRACT N CONTRACT NO. SHOP-R SHOP-I	T BY CO SHOP-R	BY CONTRACT N SHOP-R SHOP-1	IUMBER BLDG.	IUMBER BLDG, STOCK NUMBER	MATERIAL DESCRIPTION H	HZ-CD VENDOR			PAGE 1
						; { 	• • • • • • • • • • • • • • • • • • •		
N0061284A0213	90	90	69	3416DC5087311	CAM TO RAISE LOCK PIN 838 PART PO100 CHARLESTON SUPPLY CO	DIOO CHARL	ESTON SUPPLY CO	SEP 30,1985	882
N0061284A0376 40	9	9	69	0666815300189	NITRIC ACID - 500 ML. CONCENTR FO100 FISHER SCIENTIFIC CO	3100 FISHE	R SCIENTIFIC CO	SEP 30,1985	982
N0061284A0376	9	. \$	69	6810DC5189990	HYDROCHLORIC ACID - 6 X 100 ML PO100 FISHER SCIENTIFIC CO	0100 FISHE	ER SCIENTIFIC CO	SEP 30,1985	. 985
N0061284A0376	9	~°	69	6810DC5189990	FHOSFHORIC ACID - 500 ML CONCE PO100 FISHER SCIENTIFIC CO	0100 FISHE	R SCIENTIFIC CO	SEP 30,1985	586
N0061284A0376	ç	9	69	6810DC5189990	SOBIUM HYDROZIDE 6 X 100 ML 10 PO100 FISHER SCIENTIFIC CO	0100 FISH	ER ŞCIENTIFIC CO	SEP 30,1985	985
N0061284A0376	9	9	69	6810DC5189990	CUPRIC SULFATE - 500 GR, CAT # P0100 FISHER SCIENTIFIC CO	0100 FISH	ER SCIENTIFIC CO	. SEP 30.1985	985
N0061284A0376	9	9	69	6810DC5189990	ZINC ACETATE - 500 GR. CAT \$22 PO100 FISHER SCIENTIFIC CO	0100 FISH	ER SCIENTIFIC CO	SEP 30,1985	985
H0061284A0552	90	80	69	3416005056314	BOARD 2A5 FIELD WEAKENING BAUM PO100 KNIGHT TOOLS INC	0100 KNIG	4T TOOLS INC	SEP 30.1985	985
H0061284A0552	90	90	69	34050C5147330	CONFLET ASSY. P/N R 418-A P	0100 KMIG	PO100 KMIGHT TOOLS INC	SEP 30,1985	985

									980
HZ-CD VENDOR		VENDOR	VENBOR	VENDOR	VENDOR	VENDOR	VENDOR	VENDOR .	EQUIPMENT C
HZ-CD VENDOR		UNKNOUN VENDOR	TTIOI UNKNOUN VENBOR	CNKHOEN	UNKNOWN VENDOR	UNKNOWN VENDOR	UNKNOUN VENDOR	TTIOI UNKNOUN VENDOR	DIGITAL
42-ch		~	TT101	11101	2	7	, 2	11101	P0100
MATERIAL DESCRIPTION			ACID INHIBITOR	PACKING, PREFORMED MIL-R-83248 TT101 UNKNOWN VENDOR	SEAT SEAT VALUE,	SPRING SPRING HLCPS NN UL PC.	SFRING SPRING FIG-2-12 FAGE A Z	RING, BACK-UF MS28774-329	MODALTHSWERE 7410DC5205384 ROOK-7 OFFICE MENU PROG MINI R PO100 DIGITAL EQUIPMENT CORP
8 8	! ! ! !								84
STOCK NUMBER	• • • • • • • • • • • • • • • • • • •	DC5262191	6850006646053	5330001668390	4820002261981	5360008029266	5360005433570	5330005822107	741000520530
IUED Aldg. Contract No.									N004128586849
SSUED .		7	1174	ĸ	=	:	69	1174	9
ORT BY DATE 15: Shop-r shop-1		19	20	<u> </u>	 E	31	31	31	2
1 84 10 00-8 1									
SHOR		19	20	31	31	3.31	31	3	5
BLOCATION REPORT BY DATE ISSUED BATE-I SHOP-I BLDG.		SEP 30,1985	SEP 30+1985	SEP 30,1985	SEP 30,1985	SEP 30,1985	SEF 30,1985	SEP 30,1985	CF 3001.0F 013
E E	;	SEP	SEP	SEP	SEP	SEP	SEP	SEP	į

#LOCA SMOP-	710W R	EPORT BY SHOP-R	RLOCATION REPORT BY SHOP ISSUED TO SHOP-I BLDG. SHOP-R STOCK NUMBER	MATERIAL DESCRIPTION	3	HZ-CD VENDOR	00 R	DATE-1	됨	8,1986 ITY	10:18 PAGE 2 UNIT CONTRACT NO.
						† † † † †		; ! ! !		• • • • • • • • • • • • • • • • • • •	
34	69	34	6640DC5134380	BLOCKS STANDARD TE	ST, CAL	POIOO MAR	STANDARD TEST, CAL PO100 HARK V LABORATORY	SEP 30	1985	SEP 30,1985 000001 EA	N0061285NN988
ř	69	*	6640005183381	BLOCKS STANDARD TES	II. CAL	FOIOO MAR	STANDARD TEST, CAL POIDO MARK V LABORATORY	SEP 30,1985	1985	000001 EA	N0061285MN988
34	69	34	6640005183381	BLOCKS STANDARD TEST, CAL PO130 MARK V LABORATORY	ST, CAL	POIDO MAR	C V LABORATORY	SEP 30,1985	1985	000001 EA	N0041285HH988
34	69	34	6640DC5183381	BLOCKS STANDARD TEST. CAL PO100 MARK V LABORATORY	IT, CAL	PO100 MAR	C V LABORATORY	SEP 30,1985	1985	000001 EA	N0041285HH988
46	69	34	6640DC5203384	CHRONIUM SI STANDARD SOLN PO100 E 1	SD SOLN	P0100 E 1	DUPONT NEN PRODUC SEP 30,1985	SEP 30	1985	000001 EA	N0061285KB432
Ť	69	34	6640DC5203384	COBALT 60 STAND	ARD SOL	P0100 E 1	STANDARD SOL PO100 E I DUFONT NEW PRODUC SEP 30,1985	SEP 30		000001 EA	N0061285N0432
ř	69	34	6640DC5203384	MANGANESE 54 STANDARD SOL PO100 E I	ARB SOL	F0100 E I	DUPONT NEN PRODUC SEP 30,1985	SEP 30	1985	000001 EA	· NO061285HQ432
86	1178	38	5310010647228	BAR TORQUE		TT101 UNK	TT101 UNKNOWN VENDOR	SEP 30,1985	1985	000003 EA	
38	1178	1178 38	5310010647228	BAR TORQUE		TT101 UNK	TT101 UNKHOWN VENDOR	SEP 30,1985	1985	000003 EA	

	•
VENDOR	UNKNOUN VENDOR UNKNOUN VENDOR UNKNOUN VENDOR UNKNOUN VENDOR MARK V LABORATORY MARK V LABORATORY MARK V LABORATORY KNIGHT TOOLS INC DIGITAL EQUIPHENT CORP
CONTRACT NO.	NOO61285MM988 NOO61285MM988 NOO61285MM988 NOO61285MM988
BLDG. DATE-I	SEP 30,1985 SEP 30,1985
BL DG.	1174 1178 1178 1178 69 69 69 69 69
ELOCATION REPORT BY NATERIAL NAME NATERIAL NAME SHOP-I	ACETYLENE TECHNICAL 98 PER CEN 31 ACID INHIBITOR ADHESIVE, ARMSTRGNG 0 520 1/2 64 1078 SEP 30.1985 BAR TORQUE BAR TORQUE BLOCKS STANDARD TEST, CALIBRAT 34 BLOCKS STANDARD TEST, CALIBRA

EUSAGE	EUSAGE SUMMARY), 7,0	1131	STOCK MINABLE	HATERIAL DESCRIPTION	VENDOR		DATE-1		JUL 8:1986	8,1986 10:20	PAG
					}					, , , ,		!
61	:	000001 LT	5	DC5262191		UNKNOWN VENDOR	VENDOR	SEP	SEP 30,1985			
50	1174	000007 GL	ಕ	6850006646053	ACID INHIBITOR	UNKNOWN VENDOR	VENDOR	SEP 3	SEP 30,1985			
31	so.	, W3 90000	EA.	5330001668390	PACKING, PREFORMED MIL-R- UNKNOWN VENDOR	UNKROUR	VENDOR	SEP	SEP 30,1985			
31	, =	000004 EA	<u>ح</u>	4820002261981	SEAT SEAT VALUE,	UNKNOWN VENDOR	VENDOR	SEP	SEP 30,1985			
31	=	000001 EA	EA	5360008029266	SPRING SPRING HLCPS HN V UNKNOWN VENDOR	UNKNOUN	VENDOR	SEP	SEP 30,1985			
31	69	000001 EA	EA	5360005433570	SPRING SFRING FIG-2-12 P UNKNOWN VENDOR	UNKHORN	VENDOR	638	SEP 30,1985		i	
31	1174	000003 EA	EA	5330005822107	RING+ BACK-UP HS28774-329 UNKNOWN VENDOR	UNKHOWN	VENDOR	SEP	SEP 30,1985		•	
32	69	000005 EA	EA	7610005205384	BOOK-7 OFFICE MENU PROG M DIGITAL EDUIPMENT CO SEP 30.1985	DIGITAL	EQUIPMENT CO	SEP .	30,1985			

APPENDIX D

EXAMPLES OF DATA SHEETS .

APPENDIX D

The data sheet on pages D-3 and D-4 labeled Hazardous Materials Data Sheet is the worker data sheet. The Material Safety Data Sheet on pages D-5 through D-8 is the full listing of an HMIS or local MSDS entry.

```
HAZARDOUS MATERIALS DATA SHEET
SECTION I - IDENTIFICATION INFORMATION
WDS 4: W/00181-1
                   WDS DATE: DEC 9,1985
MATERIAL NAME:
GACOFLEX HYPALON,
U.I.C.: 6
                      FACILITY: CNSY
MANUFACTURER NAME:
                                     EMERGENCY TELEPHONE:
   GACO WESTERN INC.
                                         206 575-0450
MANUFACTURER ADDRESS:
CHEMICAL NAME:
                                     TRADE NAME:
   HYPALON
                                         GACOFLEX HYPALON
CHEMICAL FAMILY:
                                     FORMULA:
   CHLOROSULFONATED POLYETHYLENE
NFFA CODE: 3330XY
SECTION II - HAZARDOUS INGREDIENTS
ALCOHOL, BENZENE, HYPALON, PIGMENTS, ALIPHATIC NAPHTHA, 81, XYLENE,
ISOBUTYL ALCOHOL, N-PROPANOL, POLYVINYL ACETATE,
SECTION III - PHYSICAL DATA
BOILING POINT: 110-347
APPEARANCE AND ODOR:
FORM: SOLID
SECTION IV - FIRE AND EXPLOSION HAZARD DATA
FLASH POINT: 40 F.
EXTINGUISHING MEDIA:
   CARBON DIOXIDE/DRY POWDER/WATER FOG
FIRE FIGHTING PROCEDURES:
   USE SELF CONTAINED BREATHING APPARATUS/PROTECTIVE CLOTHING
FIRE AND EXPLOSION HAZARDS:
SECTION V - HEALTH HAZARD DATA
EFFECTS OF OVEREXPOSURE:
   DIZZINESS. HEADACHE/NAUSEA/LOSS OF CONCIOUS.
EMERGENCY/FIRST AID PROCEDURES:
   FRESH AIR/DO NOT INDUCE VOMIT./CALL DR.
ROUTE OF EXPOSURE:
EARLY WARNING PROPERTIES:
ACUTE TOXICITY:
CHRONIC TOXICITY:
CARCINOGENICITY:
TERATOGENICITY:
MUTAGENICITY:
  -------
SECTION VI - REACTIVITY DATA
STABILITY: STABLE
                                   CONDITIONS TO AVOID (INSTABILITY):
INCOMPATABILITY (MATERIALS TO AVOID):
HAZARDOUS DECOMPOSITION PRODUCTS:
   CARBON MONOXIDE/CARBON DIOXIDE/SULFUR OXIDE
CONDITIONS TO AVOID (HAZARDOUS POLYMERIZATION):
```

SECTION VII - SPILL OR LEAD	K PROCEDURES				
STEPS TO BE TAKEN IF MATER CLEAN WITH TOLUENE O DE		PILLED:			
WASTE DISPOSAL METHOD:					
LANDFILL MIXTURE REPORTABLE SPILL Q	TV•				
MEUTRALIZING AGENT:					
SECTION VIII - SPECIAL PRO					
RESPIRATORY PROTECTION:					
VENTILATION:					
PROTECTIVE GLOVES: EYE PROTECTION:					
OTHER PROTECTIVE EQUIPMENT	•				
SECTION IX - SPECIAL PRECA					
HANDLING/STORAGE PRECAUTION COOL, DRY PLACE AWAY FRO	NS:				
OTHER PRECAUTIONS:					
DO NOT TAKE INTERN./AU	DID CONTACT WITH	EYES AND SKI	IN		
SECTION X - OTHER INFORMAT	ION				**********
AUTO IGNITION TEMPERATURE:					
SPECIAL LABELLING:					
SPECIAL HAZARDS:					
SPECIAL TRAINING:					
COMMON USE:					
COLOR:	COLOR NO.:				
WORK CONTROL DOCUMENT: P/500		1	oc.	Nn.:	P/500
REMARKS:		•			

```
MATERIAL SAFETY DATA SHEET
SECTION I - IDENTIFICATION INFORMATION
M/00181-1 COMMENT:
MSDS 4: M/00181-1 MSDS DATE: AUG 6,1986
WDS #:
                     . WDS DATE:
APPROVAL CODE:
                                                SOURCE MSDS:
MATERIAL NAME: DEGREASING SOLVENT, SUPERSOL-80,
COMMENT:
TRADE NAME: DEGREASING SOLVENT
U.I.C.: 00181 FACILITY: PSNY
LOCAL STOCK NUMBER:
A100, L999900123,
SPECIFICATION: MIL-12309
NFPA: 333ACID COMMENT:
COLOR: CLEAR
                           COMMENT: THIS MATERIAL TURNS BLACK WHEN MIXED
                                      WITH PRODUCTS CONTAINING CHLORINE
COLOR NO.: 0
                     COMMENT:
MSDS DATA FLAG: PHNIS DATA FLAG: A SAFETY FLAG:
TRANSPORTATION FLAG:
                                      MATERIAL ACTION CODE:
MATERIAL CHANGE CODE:
                                       MATERIAL DATE OF ENTRY:
                                       COMMENT:
FOCAL POINT INDICATOR: PROPRIETARY INDICATOR:
                                                               WDS FLAG:
MANUFACTURER NAME: MARFAN ELECTRONICS
COMMENT:
MANUFACTURER ADDRESS: 1820 PRIMROSE TRAIL
COMMENT:
MANUFACTURER DAY TELEPHONE: 212 456-4893 COMMENT: HANUFACTURER NIGHT TELEPHONE: 212 201-3748COMMENT:
DISTRIBUTOR NAME: INDUSTRIAL POLYCHGEMICAL SERVICE
COMMENT:
DISTRIBUTOR ADDRESS: PO BOX 471, GARDENA, CALIFORNIA 90247
COMMENT:
DISTRIBUTOR DAY TELEPHONE: 619 392-3029 COMMENT: DISTRIBUTOR NIGHT TELEPHONE: NONE COMMENT:
EMERGENCY TELEPHONE: 212 564-1029 COMMENT:
FSCH:
                 COMMENT:
PART NUMBER INDICATOR:
CHEMICAL NAME: 5-HYDROXYQUINONE
CONKENT:
CHEMICAL FAMILY: QUINONE
COMMENT:
FORMULA: 5-0H-C6H12
                                      COMMENT:
SECTION II - INGREDIENTS
                                                         PCT: 10 Z
    BENZENE
        TLV: 100 PPM UNITS:
OTHER LIMIT:
                                          . PEL:
                                                            INTTS:
        CAS: 0000-00-0
                                 UNITS:
                                 NIOSH: N/1
    CHRONIUN
                                                          PCT:
      TLV:
OTHER LIMIT:
                         UNITS:
                                            PEL:
                                                            UNITS:
                                  UNITS:
        CAS: CAS-1
                                 NIOSH:
    PETROLEUM DISTALLATE
                                                          PCT:
        TLV:
                         UNITS:
                                            PEL:
                                                            UNITS:
         OTHER LIMIT:
                                  UNITS:
         CAS: 44-3-4
                                 NIOSH:
    STODDARD SOLVENT
                                                           PCT:
        TLV:
                                            PEL:
                          UNITS:
                                                             UNITS:
         OTHER LIMIT:
                                 UNITS:
         CAS: 000-00-1
                                 NIDSH: WJ8925000
    ALIPHATIC NAPHTHA
                                                           PCT:
```

```
-----
                        UNITS:
                                            PEL:
                                                             UNITS:
         TLV:
         OTHER LIMIT:
                                 UNITS:
         CAS: 234-39-9
                                 NIOSH:
                                                          PCT: 10
    TIN
                      - UNITS: PERC
                                            PEL:
                                                            UNITS:
         TLV:
         OTHER LIHIT;
                                 UNITS:
                                 NIOSH: N-1
         CAS: DA-1
    PINE DIL
                                                          PCT:
         TLV:
                        UNITS:
                                            PEL:
                                                            UNITS:
                                 UNITS:
         OTHER LIMIT:
         CAS: 99999-34-3
                                 NIOSH:
SECTION III - PHYSICAL DATA
BOILING POINT: 310 F COMMENT:
VAPOR PRESSURE: 29 MMHG
VAPOR DENSITY: 1.203
SOLUBILITY IN WATER: 21 FPM
                                      COMMENT:
                                      COMMENT:
                                      COMMENT:
SPECIFIC GRAVITY: 2.19
                                      COMMENT:
PCT. VOLATILE BY VOL.: 29%
                                      COMMENT:
EVAPORATION RATE: 10
                                      COMMENT:
APPEARANCE AND ODOR: CLEAR AND ODORLESS
COMMENT:
SECTION IV - FIRE AND EXPLOSION HAZARD DATA
FLASH POINT: 120 F
                                      COMMENT:
LEL: 1.8
                                      COMMENT:
UEL:
      11.8
                                      COMMENT:
EXTINGUISHING MEDIA: DRY CHEMICAL, CARBON DIOXIDE, FOAM
FIRE FIGHTING PROCEDURES: CLOSE OR CONFINED QUARTERS REQ. BREATHING APP.
COMMENT:
FIRE AND EXPLOSION HAZARDS: FIRE HAZARD BECAUSE OF LOW FLASS POINTS, HIGH
                             VOLATILITY
COMMENT:
SECTION V - HEALTH HAZARD DATA
TLV FOR THE HIXTURE: 200 PPH COMMENT:
EFFECTS OF OVEREXPOSURE: NAUSEA, DIZZINESS, HEADACHE, EYE IRRITATION,
COMMENT:
EMERG./FIRST AID PROC.: VAPORS: REMOVE TO FRESH AIR; LIQUID: WASH WITH
                         WATER, REMOVE CLOTHES
COMMENT:
ROUTE OF EXPOSURE: INHALATION
ACUTE TOXICITY: NAUSEA, DEFATTING EFFECT ON TISSUES
CHRONIC TOXICITY: NONE
MSDS EXPOSURE LIMIT: 250 PPM COMMEN
EARLY WARNING SIGNS: LIGHTHEADEDNESS
                               COMMENT:
CARCINOGENICITY: MAY CAUSE CANCER IN LABORATORY ANIMALS
TERATOGENICITY: NONE
MUTAGENICITY:
SECTION VI - REACTIVITY DATA
STABILITY: STABLE COMMENT:
COND. TO AVOID (INSTABILITY): KEEP FROM HEAT, SPARKS, OPEN FLAME
COMMENT:
MAT. 10 AVOID (INCOMPATIBLE): CAUSTICS, AMMONIA, INORGANIC ACIDS
COMMENT:
```

MATERIAL SAFETY DATA SHEET HAZARD. DECOMPOSITION PRODUCTS: CARBON DIOXIDE FROM PVC, CARBON MONOXIDE, HYDROGEN CHLORIDE COMMENT: HAZARD. POLYMERIZATION OCCUR: WILL NOT OCCUR COMMENT: COND. TO AVOID (HAZ, POLYH.): COMMENT: SECTION VII - SPILL OR LEAK PROCEDURES SPILL AND LEAK CONTROL: ELIMINATE IGNITION SOURCES, AVOID BREATHING BAPORS COMMENT: WASTE ELIHINATION: INCINERATE COMMENT: REFORTABLE QTY .: COMMENT: NEUTRALIZING AGENT: SODA ASH SECTION VIII - SPECIAL PROTECTION INFORMATION RESPIRATORY PROTECTION: RESPIRATOR IN CONFINED SPACES COMMENT: VENTILATION: NORMAL VENT. PREFERABLE COMMENT: PROTECTIVE GLOVES: RUBBER OR PVC COMMENT: EYE PROTECTION: SAFETY GOGGLES CONMENT: OTHER PROTECTIVE EQUIPMENT: COMMENT: SECTION IX - SPECIAL PRECAUTIONS HANDLING/STORAGE PRECAUTIONS: COMMENT: OTHER PRECAUTIONS: COMMENT: SPECIAL HAZARDS: INSTABILITY WITH OTHER SOLVENTS SUPPLEMENTAL DATA: SECTION X - TRANSPORTATION INFORMATION STORAGE COMPATIBILITY CODE: CONHENT: DOT ID NUMBER: COMMENT: DOT NAME: COMMENT: DOT CLASS: COMMENT: UNIT OF ISSUE: COMMENT: SIZE CONTAINER: COMMENT: TYPE CONTAINER: CONHENT: NET UNIT WEIGHT: COMMENT: MAGNETISM: COMMENT: RADIOACTIVITY: COMMENT: AUTO IGNITION TEMP: COMMENT: MATERIAL FORM: LIG COMMENT: SECTION XI - OTHER INFORMATION SPECIAL LABELLING: LABEL AS TO CONTENTS SPECIAL TRAINING: NONE

MATERIAL SAFETY DATA SHEET

COMMON USE: DEGREASING SOLVENT DOC. NUMBER: PI/10

NAME: SAND BLASTING

DATE:

DOC. NUMBER: PI/123
NAME: USE OF STANDARD SOLVENTS

DATE: APR 1,1985

REMARKS: USE OF THIS MATERIAL IS RESTRICTED TO POSTED AREAS ANY OTHER USE WILL RESULT IN DISCIPLINARY ACTION AND/OR FINES

APPENDIX E

EXAMPLE OF OUTPUT FROM SEARCH PROCESS

STOCK NUMBER: M/00181-1 MATERIAL NAME: DEGREASING SOLVENT MATERIAL NAME: SUPERSOL-80 LOCAL STOCK NUMBER: A100 LOCAL STOCK NUMBER: L999900123 PRINT FLAG: P HHIS DATA FLAG: A MANUFACTURER NAME: MARFAN ELECTRONICS MANUFACTURER ADDRESS: 1920 PRIMROSE TRAIL MANUFACTURER DAY TELEPHONE: 212 456-4893 HANUFACTURER NIGHT TELEPHONE: 212 201-3748 DISTRIBUTOR NAME: INDUSTRIAL POLYCHGENICAL SERVICE DISTRIBUTOR ADDRESS: PO BOX 471, GARDENA, CALIFORNIA 90247 DISTRIBUTOR DAY TELEPHONE: 619 392-3029 DISTRIBUTOR NIGHT TELEPHONE: NONE EMERGENCY TELEPHONE NUMBER: 212 364-1029 CHENICAL NAMES: 5-HYDROXYQUINONE CHENICAL FAMILY: QUINDNE CHENICAL FAMILIA GUARDIAN CAS NO.: 0000-00-0 NIOSH NO.: N/1
CAS NO.: CAS-1 FORMULA: 5-OH-C6H12 TLV: 100 PPM INGREDIENTS: PETROLEUM DISTALLATE CAS NO.: 44-3-4 INGREDIEMES: STODDARD SOLVENT CAS NO.: 000-00-1
INGREDIENTS: ALIPHATIC NAPHTHA CAS NO.: 234-39-9 NIOSH NO.: WJ8925000 PERCENT: 10 INGREDIENTS: TIN CAS NO.: DA-1 NIOSH NO.: N-1 TLV UNITS: PERC INGREDIENTS: PINE OIL CAS NO.: 99999-34-3 SPECIFICATION: MIL-12309

BOILING POINT: 310 F

SOLUBILITY IN WATER: 21 PPH

SPECIFIC GRAVITY: 2.19 VAPOR DENSITY: 1.203 APPEARANCE AND ODOR: CLEAR AND ODORLESS
LOWER EXPLOSIVE LIMIT: 1.8 EXTINGUISHING HEDIA: DRY CHEMICAL, CARBON DIOXIDE, FOAM FIRE FIGHTING PROCEDURES: CLOSE OR CONFINED QUARTERS REQ. BREATHING APP. FIRE AND EXPLOSION HAZARDS: FIRE HAZARD BECAUSE OF LOW FLASS POINTS, HIGH VOLAT TLV FOR THE MIXTURE: 200 PFM EFFECTS OF OVEREXPOSURE: NAUSEA, DIZZINESS, HEADACHE, EYE IRRITATION, EMERGENCY AND FIRST AID PROC .: VAPORS: REHOVE TO FRESH AIR; LIQUID: WASH WITH W ATER, REMOVE CLOTHES STABILITY: STABLE HAT. TO AVOID (INCOMPATIBLE): CAUSTICS, AMMONIA, INORGANIC ACIDS HAZARD. DECOMPOSITION PRODUCTS: CARBON DIOXIDE FROM PVC, CARBON MONOXIDE, HYDROGE HAZARD. POLYMERIZATION OCCUR: WILL NOT OCCUR COND. TO AVOID (INSTABILITY): KEEP FROM HEAT, SPARKS, OPEN FLAME SPILL AND LEAK CONTROL: ELIMINATE IGNITION SOURCES, AVOID BREATHING BAPORS WASTE ELIHINATION: INCINERATE MATERIAL FORM: LIQ MSDS NUMBER: M/00181-1 MSDS DATE: AUG 6, 1986 NFPA CODE: 333ACID TO HALT: MSDS EXPOSURE LIMIT: 250 PPH COLOR: CLEAR COLOR NUMBER: O ROUTE OF EXPOSURE: INHALATION SPECIAL LABELING: LABEL AS TO CONTENTS SPECIAL TRAINING REQUIRED: NONE SPECIAL/EARLY WARNING PROP.: LIGHTHEADEDNESS COMMON 152: DEGREASING SOLVENT NEUTRALIZING AGENT: SODA ASH ACUTE TOXIC EFFECTS: NAUSEA, DEFATTING EFFE 1 04 TISSUES U.I.C.: 00181 FACILITY: PSNY REMARKS: USE OF THIS MATERIAL IS RESTRI T: FOSTED AREAS ANY OTHER USE WILL RESULT IN DISCIPLINARY ACTION AND/ WORK CONTROL DOCUMENT NUMBER: PI/10 WORK CONTROL DOCUMENT NAME: SAND BLASTING WORK CONTROL DOCUMENT NUMBER: PI/123 WORK CONTROL DOCUMENT NAME: USE OF STANDARD SOLVENTS WORK CONTROL DOCUMENT DATE: APR 1, 1985 CHRONIC TOXIC EFFECTS: NONE RESPIRATORY PROTECTION: RESPIRATOR IN CONFINED SPACES VENTILATION: NORMAL VENT. PREFERABLE PROTECTIVE GLOVES: RUBBER OR PVC EYE PROTECTION: SAFETY GOGGLES CARCINOGENICITY: HAY CAUSE CANCER IN LABORATORY ANIHALS TERATOGENICITY: NONE C-INGREDIENTS: STODDARD SOLVENT IS AN INERT CARRIER C-COLOR: THIS MATERIAL TURNS BLACK WHEN MIXED WITH PRODUCTS CONTAINING CHLORINE

APPENDIX F

EXAMPLES OF HMIS UPDATE REPORTS

APPENDIX F

The following reports contain references only to HMIS entries.

Therefore, "Stock Number" refers to national stock number, "FSCM" refers to Federal Supply Code for Manufacturers, "PNI" is part number indicator, "Material Name" is trade name, and "vendor" is either manufacturer or distributor.

UDS NUMBER	
JUL 8,1986 10121 MDS MUMBE	
튁	
JUL 8,1986 10:21 TOCK NUMBER FSCH PNI MATERIAL WANE UDS WUNBER	AMATEX CORP. UNION CARBIDE CORP. LINDE DIV ANCHEM PROD VIRGINIA CHEM, INC HOFFER'S INCPAINT DIV. USM CORPORATION, BOSTIK DIVISION
i ! !	1-0
	FISO-3/4,ASBESTOS. PROPYLENE OXIDE DEOXIDINE 624 VIRGINIA \$10 BEGREASING SOLVENT, D-1 SEMI-GLOSS INTERIOR LATEX WHITE ROSTIX,1007P
NANE	ASBE 0X1 E 0X1 E 624 #10 #10 SS IN
PNI MATERIAL NAME	90896 A FISO-3/4,ASBESTOS. BN493 A PROPYLENE OXIDE B4063 A DEOXIDINE 624 B1548 A UIRGINIA #10 DEGREA B1348 A SEMI-GLOSS INTERIO
I N	***
EPORT FSCH	90896 A 8N493 A 84063 A 87698 A 81348 A
HAIS UPDATE REPORT TOCK NUMBER FSCH	97000000000 810000000000 850000000000 850000000000

EMATERIALS LOAD ERROR REFORT STOCK WUNDER FSCH PMI FIELD VALUE 80.8 AAAAASSSSDDDDDFFFFFGGGGGHHH

123

1313

F-5

ENSOS NOT MATCHED BY HMIS RECO	HED BY HMIS RIMBER	IS RECORD	HSBS	MSDS DATE	TRADE NAME	UENDOR	JUL 8.1986 10:22 Chemical Mames	10:22	PAGE 1 .
SIDER NOTICES		- 1							
					THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS O	774			
2222222222			3	CR 22, 1785	PAINT TELEDE				
++++++++++++	1		SEP	29,1985	SODIUM SULFATE	CHENCO			
68200000000089	,								
6625J3309607A	,								
1560K0152507A									
1560K0152507A									
1560k0152507A	•	•							
11111122223333	1111122022333	22333	SEP	SEP 16,1985		TENNECO			
999998888777	H/00181-		SEP	16.1984	409 CLEANER	DUFONT			
M/00181-1	M/00181-1		JAN	JAN 1,1985	DEGREASING SOLVENT	DOW CHEM	1		
M/00181-10	M/00181-10	-10	JAR	JAN 10,1984	PERMAFUSE	PERMAFUSE CORP.	PERMAFUSE		
1560h0152507A	M/00181-11	==							
123455555559	H/00181-12	-12	SEP	SEP 18,1985	_	_		i	
M/00181-13	M/00181	-13	HAY	8 1985			FORMAL DEHYDE	•	
M/00181-14	M/00181-14	-14	SEP	SEP 28,1984	PT 515 WASP-FREEZE	UNITHIRE RESEARCH LAB.	MASP-FREEZE		
	A1-10100/W	99	TJU	APT 33,1005	1111K				

HINGREDIENTS NOT IN STRESSOR FILE INGREDIENT	ILE MATERIAL WANE	STOCK NUMBER	FSCM	PART	JUL BITYBO TOTZZ FABE I PART MANUFACTURER	- !
03=== =================================	SEMI-GINSS INTERIOR LATEX WHIT S/8010LS0010001	S/8010L S0010001	81348	≪	HOFFER'S INCPAINT BIV.	
	SEMI-GIOSS INTERIOR LATEX WHIT 8010LS0010001	8010LS0010001	81348	æ	HOFFER'S INCPAINT DIV.	
AI (1040)	GACOFLEX HYPALON	K/11			GACO WESTERN INC.	
TCOBITY! AL CONO!	GACOFLEX HYPALON	H/11			GACO WESTERN INC.	
KITCH THE CHINE BICK! DOUBLE	F UIRGINIA ALO DEGREASING SOLVEN	S/6850000000003	87698	⋖	VIRGINIA CHEM, INC	
METHYLENE CHIORIDE, DICHLOROME -	VIRGINIA #10 DEGREASING SOLVEN	685000000003	87698	⋖	VIRGINIA CHEM, INC	
Profiles	XZIS	M/32			NOG	
4	SENT-GLOSS INTERIOR LATEX UNIT	S/8010LS0010001	81348	•	HOFFER'S INCPAINT DIV.	
••	CENT CLOSE INTERIOR ATEX HATT	80101 50016001	81348	«	HOFFER'S INCPAINT DIV.	
	DI SIS UACP-FREEZE	H/14			UHITHIRE RESEARCH LAB.	
ACCIATC	GALOFI EX HYPA! ON	M/11		•	GACO WESTERN INC.	
FOLIVIAL ACCIATE	GACOLLEX HYPALON	W/00181-1			GACO WESTERN INC.	
ANIBE	200-1050 FIFTROSTATIC SOLUTIO	\$768500000000058	6K331	⋖	AN CORP HULTIGRAPHICS DIV (NFR	(FF)
	PROPYLENE OXIDE	5/68100000000001	8N493	⋖	UNION CARBIDE CORP. LINDE	₽ 1
	PROFYLENE OXIDE	6810000000001	8N493	«	UNION CARBIDE CORP, LINDE DIV	E 91€
	PT 515 MASP-FREEZE M/14	N/14			WHITHIRE RESEARCH LAB.	